

**(57) Abstract:** The invention relates to a detector for the temporally resolved recording of detection events, comprising a converter device (34, 35, 36), which in the operating state supplies an electrical signal when a detection event occurs, and evaluation electronics (1) having at least one trigger (3) which is coupled to the converter device (34, 35, 36) and is designed to supply a trigger signal (5) that is temporally assigned to the electrical signal, at least one time signal source (10) that supplies a first analog time signal (Z 1), and at least a first sampler (6) which is coupled to the trigger (3) and is designed to provide a first momentary value (EI) of the first analog time signal (Z1), said first momentary value being temporally assigned to the trigger signal (5).

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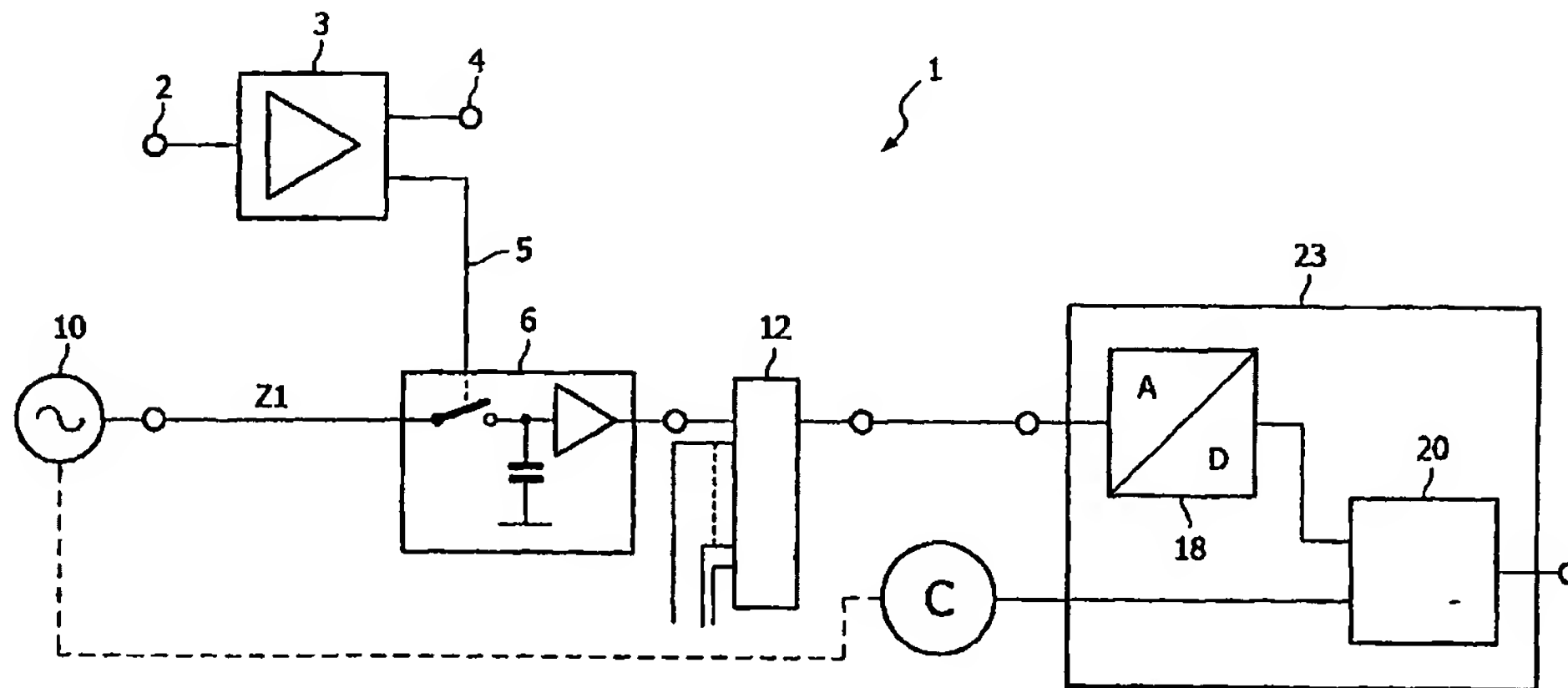
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**(54) Title:** DETECTOR FOR THE TEMPORALLY RESOLVED RECORDING OF DETECTION EVENTS



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